Claims

1. Imaging device
- which is adapted for optically imaging in a first imaging mode an object (O) to be imaged so as to generate at least one real object image (OI) corresponding to said object (O) and
- which is adapted for optically projecting in a second imaging mode a display image (DI) so as to generate at least one real projection image (PI) corresponding to said display image (DI).

2. Imaging device according to claim 1,
which is adapted for externally projecting said display image (DI) so as to obtain an external real projection image (PI).

3. Imaging device according to anyone of the preceding claims,
- wherein an optical objective arrangement (10) is provided,
- wherein said optical objective arrangement (10) or a part thereof is adapted to work in said first imaging mode as an image recording objective or camera objective or as a part thereof, and
- wherein said optical objective arrangement (10) or a part thereof is adapted to work in said second imaging mode as an image projecting objective or projector objective or as a part thereof.

4. Imaging device according to anyone of the preceding claims,
which is adapted for generating said object image (OI) in an analogue or digital manner.

5. Imaging device according to anyone of the preceding claims,
wherein image sensor means (40) is provided for generating and/or recording said real object image (OI).

6. Imaging device according to claim 5,
wherein said image sensor means comprises at least one charge coupled device.

7. Imaging device according to anyone of the preceding claims,
wherein storage means (80) is provided for storing said real object image (OI), said display image (DI), derivatives thereof and/or image information (DII, OII) thereof.

8. Imaging device according to anyone of the preceding claims, wherein an evaluation/control unit (70) is provided for controlling said first and second imaging modes.

9. Imaging device according to claim 8, wherein said evaluation/control unit (70) is adapted to extract, in particular from said image sensor means (40), to evaluate and/or to store on said storage means (80) image information (OII) corresponding to said real object image (OI).

10. Imaging device according to anyone of the claims 8 or 9, wherein said evaluation/control unit 70 is adapted to control the formation of said projection image (PI), in particular based on image information (DII), corresponding to said display image (DI) to be projected, in particular stored and read from said storage means (80) or in particular externally supplied.

11. Imaging device according to anyone of the preceding claims, wherein an illumination unit (50) is provided for optically projecting together with said optical objective arrangement (10), in particular in the second imaging mode, said display image (DI), so as to obtain said projection image (PI).

12. Imaging device according to claim 11, wherein said illumination unit (50) is adapted to be controlled by said evaluation control unit (70) and/or by said storage means (80).

13. Imaging device according to anyone of the claims 11 or 12, wherein said illumination unit (50) comprises a light source device appropriate for projection purposes, in particular a high pressure gas discharge lamp arrangement, a LED arrangement or the like.

14. Imaging device according to anyone of the claims 11 or 13, wherein said illumination unit (50) comprises a light valve device (30), in particular a micro-display, a LCD-device, a liquid-crystal-on-silicon (LcoS) device, and/or a digital mirror device (DMD), for generating said display image (DI) or a preform thereof, in particular based on said corresponding image information (DII).

15. Imaging device according to claim 13, wherein said light valve device (30) comprises a single light valve for all fundamental colours or one light valve for each fundamental colour.

16. Imaging device according to anyone of the preceding claims,

which is adapted to display images currently taken and/or previously recorded to a spectator by displaying in a viewfinder mode respective images by means of provided viewfinder optics (60).

17. Imaging device according to claim 16,
wherein said viewfinder optics (60) comprises a viewfinder screen (61) for generating a real image.

18. Imaging device according to claim 16,
wherein said viewfinder optics (60) comprises a viewfinder eyepiece (62) for generating a virtual image.

19. Imaging device according to anyone of the claims,
which is adapted to process a plurality of images, in particular sequences thereof or movies.

20. Imaging device according to anyone of the preceding claims,
which is a camcorder device having projector capabilities.